

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claims 1-8 (canceled).

Claim 9 (currently amended): The method of claim [[1]] 39 wherein:  
the second measurement has a higher resolution than the first measurement.

Claim 10 (currently amended): The method of claim [[1]] 39 wherein:  
the ~~workpiece comprises a semiconductor wafer having~~ wafer comprises a plurality of areas of integrated circuits separated from one another by a plurality of streets; and  
the first location is in a street in the plurality of streets, and the second location is in an area in the plurality of areas of integrated circuits.

Claims 11-17 (canceled).

Claim 18 (currently amended): The method claim [[1]] 39 wherein:  
the ~~workpiece comprises a wafer including~~ wafer comprises a semiconductor substrate and a plurality of layers formed on the semiconductor substrate, said plurality of layers including said top layer;  
the first measurement is of reflectance of at least one [[a]] dielectric layer at a first location in the wafer; and  
the second measurement is of reflectance of ~~a topmost~~ said at least one layer in a second location in the wafer;  
wherein the second measurement is used to detect thickness of a topmost layer.

Claims 19-20 (canceled).

Claim 21(currently amended): The method claim [[1]] 39 wherein:

the workpiece comprises a wafer including a semiconductor substrate and a plurality of layers formed on the semiconductor substrate, said plurality of layers including said top layer;

said top layer is a semiconductor layer;

the first measurement is of concentration or concentration profile of dopants in a ~~semiconductor~~ said top layer in the wafer; and

the second measurement is of junction depth of said ~~semiconductor~~ top layer.

Claims 22-29 (canceled).

Claim 30 (original): An apparatus for measuring a property of a workpiece, the apparatus comprising:

a first measurement device;

a second measurement device; and

a computer coupled to each of the first measurement device and the second measurement device, the computer comprising software to calibrate the second measurement device for use at a second location in the workpiece based on a plurality of measurements by the first measurement device at a first location in the workpiece, the second location being different from the first location.

Claim 31 (original): The apparatus of claim 30 wherein:

the second measurement device has a higher resolution than the first measurement device.

Claim 32 (original): The apparatus of claim 30 wherein:

the first measurement device comprises a spectroscopic reflectometer; and the second measurement device comprises a laser reflectometer.

Claim 33 (original): The apparatus of claim 32 wherein:

the laser reflectometer comprises a laser of a predetermined wavelength; and

the software when executed by the computer generates a model of a plurality of topmost surfaces of the workpiece as a function of reflectance at said predetermined wavelength.

Claim 34(currently amended): The apparatus of claim [[28]] 30 wherein the software when executed by the computer causes the computer to:

receive a measurement of the workpiece from the first measurement device; and  
generate a model of the property of the workpiece as a function of a plurality of values of a signal measured by the second measurement device, based on the measurement from the first measurement device.

Claims 35-38 (canceled).

Claim 39 (currently amended): A method of determining a property of a wafer, the method comprising:

measuring reflectance of the wafer at a plurality of wavelengths, based on illumination of the wafer with a beam of white light of a first spot size;

based on reflectance at the plurality of wavelengths, generating a model of reflectance at a predetermined wavelength as a function of thickness of a top layer of the wafer;

measuring reflectance at the predetermined wavelength, based on illumination of the wafer with a laser beam of a second spot size, the second spot size being smaller than the first spot size; and

based on reflectance at the predetermined wavelength, looking up the model to determine a value of thickness of the top layer of said wafer.

Claim 40 (currently amended): The method of claim 39 wherein:

the top layer is hereinafter "first layer," said model is hereinafter "first model," and said value is hereinafter "first value";

the method further comprises determining a second value of thickness of the first layer based on reflectance at the plurality of wavelengths, generating a second model of

reflectance at the predetermined wavelength as a function of thickness of a second layer of the wafer and looking up the second model to determine a third value of thickness of the second layer if the first value is greater than the second value by a predetermined amount.

Claim 41 (original): The method of claim 39 wherein:

reflectance at the plurality of wavelengths is measured at a first location;  
reflectance at the predetermined wavelength is measured at a second location; and  
the second location is separated from the first location by a predetermined distance.

Claim 42 (original): The method of claim 41 wherein:

the predetermined distance is sufficiently small to ensure that a plurality of properties, other than said thickness, are substantially identical between said first location and said second location.

Claim 43 (currently amended): The method of claim ~~[[37]]~~ 40 wherein:

the predetermined amount is 1%.

Claim 44 (canceled).